

EXHIBIT 7

**DECLARATION OF IRENE YANG IN SUPPORT OF HUAWEI'S OPPOSITION TO
SAMSUNG'S MOTION TO STRIKE PORTIONS OF HUAWEI'S EXPERT REPORTS**

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION**

HUAWEI TECHNOLOGIES CO., LTD.,
HUAWEI DEVICE USA, INC., and
HUAWEI TECHNOLOGIES USA, INC.,

Plaintiffs / Counterclaim-
Defendants,

v.

SAMSUNG ELECTRONICS CO., LTD.,
SAMSUNG ELECTRONICS AMERICA,
INC.,

Defendants / Counterclaim-
Plaintiffs,

and

SAMSUNG RESEARCH AMERICA,

Defendant,

v.

HISILICON TECHNOLOGIES CO., LTD.,

Counterclaim-Defendant.

Case No. 3:16-cv-2787-WHO

**SUPPLEMENTAL EXPERT REPORT OF VIJAY K. MADISETTI, PH.D.
REGARDING INVALIDITY**

(June 11, 2018)

I. INTRODUCTION

1. I have been engaged as an expert in this action by Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (collectively “Samsung”). I expect to testify at trial regarding the matters set forth in this Supplemental Report, if asked about these matters by the Judge or the parties’ attorneys.

2. I previously submitted the Expert Report of Vijay K. Madiseti, Ph.D. Regarding the Invalidity of U.S. Patent Nos. 8,644,239 and 8,416,892 (“Opening Report”) on April 27, 2018.

3. My compensation, background, relevant qualifications, and a technology background are detailed in Sections I, II, and III of my Opening Report. I incorporate those sections of my Opening Report into this Supplemental Report.

4. In my Opening Report, I explained that:

I understand that Huawei contends that the Asserted Claims of the ’892 patent are entitled to a April 30, 2007 priority date based on the earlier Chinese patent application CN 2007 1074200. *See* Huawei’s First Supplemental Disclosure of Asserted Claims and Infringement Contentions dated June 20, 2017 at § I(F). I understand that Huawei has not shown that it is entitled to this priority date, and it is my opinion that the Asserted Claims of the ’892 patent are not described in, or enabled by, the Chinese priority application listed on the face of the ’892 patent.

(Opening Report at ¶ 319.)

5. For the purposes of my analysis in my Opening Report, I applied both the April 2007 and April 2008 timeframes to my definition of a person of ordinary skill in the art. My analysis and opinions remain the same using either timeframe. I incorporate that analysis into the body of this Supplemental Report.

6. I also explained that “I have assumed the Asserted Claims are entitled to an April 22, 2008 priority date, the date of the earliest PCT application filing,” but expressly “reserve[d] the right to rebut any showing by Huawei or its expert that the Asserted Claims are entitled to

any priority date before the PCT application filing date of April 22, 2008.” (Opening Report at ¶ 320 & n. 13.)

7. After I provided my Opening Report on April 27, 2018, Huawei submitted the Expert Report of Dr. Venugopal V. Veeravalli Regarding Validity of U.S. Patent No. 8,416,892 (“Veeravalli ’892 Report”) on May 25, 2018. In the Veeravalli Report, Dr. Veeravalli asserts that “the Chinese [priority] patent application discloses the entire list of cyclic shift increments in the claims.” (Veeravalli ’892 Report at ¶ 72). Dr. Veeravalli therefore alleges that the Asserted Claims are entitled to the earlier priority date of CN priority application 200710074200.1. I disagree.

8. Dr. Veeravalli identifies apparent discrepancies between the Samsung-provided translation of the CN priority application and the translation provided to him (presumably by counsel for Huawei). My opinions contained in this Supplemental Report are not affected by any such discrepancies.

9. In my opinion, there is no written description support in the CN priority application for the claimed set of cyclic shift increments present in the Asserted Claims. As a consequence, the Asserted Claims are not enabled, disclosed in, or supported by the written description of the CN priority application.

10. Dr. Veeravalli cites the following equation as allegedly providing support for the claimed cyclic shift increments in the Asserted Claims:

$$N_{CS}(k) = \lfloor N_{ZC} / [64 \times a^k + a / (1 - a) \times (a^k - 1)] \rfloor$$

(Veeravalli ’892 Report at ¶¶ 63-71.)

11. But, even using Dr. Veeravalli’s own analysis described in Section VI(C) of the Veeravalli ’892 Report, the claimed cyclic shift increments cannot be derived from this equation

because, as my table below shows, there are several values that do not match (*i.e.*, when $k = \{7, 9 \dots 14\}$). In the table below, I present the result of Equation 4 in the '892 patent (which is same as the equation relied upon by Dr. Veeravalli as allegedly providing support in the CN priority application) for values of $k = \{0 \dots 14\}$. As shown below, the erroneous values not corresponding to the values recited in the Asserted Claims are shown in yellow. This analysis provides confirmation that the CN priority application does not describe, support, or enable the claimed set of cyclic shift increments recited in the Asserted Claims of the '892 patent, to the best of my understanding. I also understand that this means the equation recited in the CN priority application (*i.e.*, Equation 4 in the '892 patent) has been dedicated to the public because it was not claimed, leading to an additional basis for invalidity.

Constants	CN Priority Eqn Before Floor	Eqn 4 Before Floor	CN and Eqn 4 After Floor	k	Claimed Ncs Values
	13.10937500	13.10937500	13	0	13
0.856	15.55776228	15.55776228	15	1	15
0.144	18.51831955	18.51831955	18	2	18
64	22.12178406	22.12178406	22	3	22
839	26.54300878	26.54300878	26	4	26
5.944444444	32.02114859	32.02114859	32	5	32
	38.89212388	38.89212388	38	6	38
	47.64306935	47.64306935	47	7	46
	59.00836259	59.00836259	59	8	59
	74.14969293	74.14969293	74	9	76
	95.02064186	95.02064186	95	10	93
	125.18178001	125.18178001	125	11	119
	171.88421519	171.88421519	171	12	167
	252.53094788	252.53094788	252	13	279
	422.03038896	422.03038896	422	14	419

12. My analysis is important for at least two reasons. First, the Asserted Claims of the '892 patent should not be accorded the priority date of the CN priority application because the required claimed set of cyclic shift increments is nowhere supported in the CN priority

application. Second, it shows that the values as claimed in the '892 patent are themselves *ad hoc* and thus not based on any systematic theory or use of a “particular framework” as alleged by Dr. Veeravalli. (Veeravalli '892 Report at ¶¶ 182-83.) This confirms that the patentee abandoned the particular framework described in the CN priority application in favor of the claimed set of *ad hoc* cyclic shift increments. Contrary to Dr. Veeravalli's assertions, at least 12 of the 16 values in the claimed set of cyclic shift increments were replicated from the prior art, as used in small and large cells. The only alleged difference appears to be in the values representing transitions between small cells and large cells.

13. I have reviewed the deposition testimony of the inventor, Oskar Mauritz. I understand that Dr. Veeravalli relies on Mr. Mauritz's deposition testimony in support of his assertion that the Asserted Claims are entitled to the priority date of the CN priority application.

14. Mr. Mauritz makes two statements. First, he admits that the claimed set of cyclic shift increments recited in the Asserted Claims is not listed or included in his invention disclosure or the CN priority application (*see* Mauritz Dep. 99:21-101:3). He also states that the values can be derived from the equation and certain given constraints (*see, e.g., id.* at 169:14-173, 166:14-169:10.). To the best of my knowledge, this second statement is in error. As shown above, the equation included in the CN priority application cannot be used to compute or derive all the values recited in the Asserted Claims.

15. Furthermore, as evidenced by my analysis above, Dr. Veeravalli applied the wrong timeframe in his obviousness analysis. I understand that he did this knowing that the parties disputed the proper priority date. His opinions regarding the level of ordinary skill in the art and his conclusions regarding the non-obviousness of the claimed invention are therefore unreliable because he uses the wrong timeframe for his non-obviousness analysis.

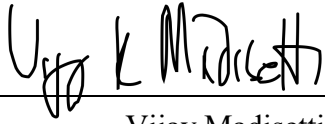
II. OTHER COMMENTS

16. My opinions are subject to change based on additional opinions that Huawei's experts may present and information I may receive in the future or additional work I may perform. With this in mind, based on the analysis I have conducted and for the reasons set forth below, I have preliminarily reached the conclusions and opinions in this Supplemental Report. I reserve the right to adjust or supplement my analysis in light of any critique of or comments on my Supplemental Report or alternative opinions advanced by or on behalf of Huawei.

17. At trial and as discussed above, I may rely on visual aids and demonstrative exhibits and may rely on analogies concerning elements of each of the Asserted Patents, the accused products, the prior art referenced in this Report, or any related technologies.

18. In connection with my anticipated testimony in this action, I may use as exhibits various documents produced in this case that refer or relate to the matters discussed in this Report. I have not yet selected the particular exhibits that might be used. In addition, I may create or assist in the creation of certain demonstrative evidence to assist me in testifying, and I reserve the right to do so, such as working computer systems, simulated cellular systems, code highlighting, claim charts, patent drawings, excerpts from patent specifications, file histories, interrogatory responses, deposition testimony and deposition exhibits, as well as charts, diagrams, videos and animated or computer-generated video to further support the positions in this Supplemental Report.

Executed in Atlanta, Georgia.

A handwritten signature in black ink, appearing to read "Vijay K Madisetti", written over a horizontal line.

Vijay Madisetti, Ph.D.

June 11, 2018

Date